

REMARKS
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**Status of Claims**

Claims 1-11 are still pending.

**35 U.S.C. 112, first paragraph rejection**

The points made in the examiner's office action are addressed below as follows:

- (1) The examiner's explanation with regard to the applicants' use of the term "activator" suggests that this is really a 112, second paragraph issue for the examiner. To the extent that the examiner does not understand the meaning of the term in the context of the applicants' invention, the applicants present that this is a well-known term of the art. See section V. "Activators" from the Handbook of Adhesive Technology, edited by A. Pizzi and K.L. Mittal, Marcel Dekker, Inc., pg. 515 (1994) - a copy of this section is attached to this office action.

If the rejection is indeed based on 112, first paragraph, it is unclear what is the factual basis as to why the examiner believes the element of "activator" was not possessed or adequately described by the applicants' at the time the invention was filed and how the examiner has met his initial burden to establish this rejection.

MPEP 2163, section II., part A. states in part:

"The examiner has the initial burden, after a thorough reading and evaluation of the content of the application, of presenting evidence or reasons why a person skilled in the art would not recognize that the written description of the invention provides support for the claims. *There is a strong presumption that an adequate written description of the claimed invention is present in the specification as filed*, Wertheim, 541 F.2d at 262, 191 USPQ at 96;.....

*Consequently, rejection of an original claim for lack of written description should be rare.* The inquiry into whether the description requirement is met is a question of fact that must be determined on a case-by-case basis." (emphasis added)

(While the applicants' present claims are technically not the "original" claims, the amendments made were to address the 112, second paragraph issues and as such the present scope of the claims is intended to match the original scope of the claims)

MPEP 2163, section III., part A. states in part:

"A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See,

e.g., *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. ***The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims.*** *Wertheim*, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should:

(A) Identify the claim limitation at issue; and

(B) Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description.

When appropriate, suggest amendments to the claims which can be supported by the application's written description, being mindful of the prohibition against the addition of new matter in the claims or description. See *Rasmussen*, 650 F.2d at 1214, 211 USPQ at 326."

As of this stage, no evidence has been provided by the examiner much less the amount of evidence required to overcome the strong presumption that the claimed invention is supported by an adequate written description.

- (2) It is unclear what is the basis for lack of written description here as it is well-known that a superabsorbent is a species of absorbent. As such, the recitation on page 3 of the specification is the standard practice of following a broad recitation with a narrower recitation. Again, there is no assertion that the applicants did not possess the claimed invention at the time it was filed.

If this rejection was presented by the examiner as a lack of enablement issue, MPEP 2164.01 states:

"The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).....

These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;

(G) The existence of working examples; and  
(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

*In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).....

It is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others. The examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole. 858 F.2d at 737, 740, 8 USPQ2d at 1404, 1407."

As stated above, it is well known that a superabsorbent is a type of absorbent and to date there has been no evidence provided by the examiner much less an evaluation of the evidences against the *Wands* factors which supports a conclusion of non-enablement.

### **35 U.S.C. § 103(a) rejection**

Claims 1-11 are rejected as being obvious over applicants' admissions in the specification in view of Ganster et al. (U.S. Patent 6,191,216).

### **Response to Examiner's Observations**

#### **(1) Clarification about applicants' "admissions"**

As this application appears headed toward Appeal Brief, the applicants wish to clarify that nature of the primary reference being used against the applicants. It is well-known that: "When an applicant states that something is prior art, it is taken as being available prior art against the claims. Admitted prior art can be used in obviousness rejections." *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). However, the "admissions" attributed by the examiner has never been made by the applicants.

In addition, 37 C.F.R. §1.97(h) provides: "The filing of an information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to the patentability as defined in §1.56(b)" *See also Riverwood Int'l Corp. v. R.A. Jones & Co., Inc.*, 324 F.3d 1346, 1355, 66 USPQ2d 1331, 1338 (Fed. Cir. 2003).

As such, there is no factual basis for the examiner's interpretation of the paragraphs in question which constitute the applicants' "admission" over that interpretation which has been given by the applicants.

- (2) Determination of *prima facie* obviousness is a question of law based on underlying factual inquiries

The examiner stated on page 3 of his final rejection that "...the Examiner firmly believes that the performance parameters would be, if not expressly disclosed clearly inherent in the stretch release backings set forth in the applicants' admission."

- (3) Examiner must provide the basis for inherency

MPEP 2112 (Requirements of Rejection Based on Inherency; Burden of Proof) states "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).....To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)(citations omitted).

However, no extrinsic evidence has been proffered which supports the examiner's claims of inherency.

- (4) Standard for establishing *prima facie* obviousness is "preponderance of evidence"

MPEP 2142 states:

"The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness [page 2100-123]...The ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The legal standard of "a preponderance of evidence" requires the evidence to be more convincing than the evidence which is offered in opposition to it.

With regard to the rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e. the reference teachings establish a *prima facie* case of obviousness) is more probable than not."

As no factual support has been offered for the examiner's position, we have not even reached the "reasonable doubt" stage much less a "preponderance of evidence [more likely than not]" stage to support a *prima facie* holding.

For these reasons, the applicants respectfully present that the claims are unobvious in light of the examiner's rejection under 35 U.S.C. 103(a).

For convenience, the applicants' previous response is reproduced below:

***Summary of response to 103(a) rejection***

- (1) Applicants' "admission" discloses less of the applicants' invention than that asserted by examiner.
- (2) No usable motivation from within the applicants' admission with teachings of Ganster et al.
- (3) Ganster et al. does not teach the polyurethane needed to be combined with applicants' "admission".
- (4) Evidence of secondary consideration was not considered.

***Applicants' "admission" discloses less of the applicants' invention than that asserted by examiner***

In describing the state of the prior art, the applicants refer to prior art which describes certain elements of the applicants invention. It appears that the applicants and the examiner are in agreement that the "admission" does not teach the use of the polyurethane-based adhesive described in the applicants' claim 1, section b).

However, the applicants also assert that the "admission" does not direct one of ordinary skill in the art to a single sided or double sided strip which comprises of a backing composed of a film having a tensile strength of 2-20 N/cm and an elongation at break of 200-800%.

***No usable motivation from within the applicants' admission with teachings of Ganster et al.***

While there must be motivation to combine the references in order to establish a *prima facie* case of obviousness, the use of an applicants' "admission" provides special burdens for maintaining this motivation to combine references as MPEP 2143 states that "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)"

Whatever motivation there may be to combine the teaching of the applicants' admission with Ganster et al. cannot come from the applicants' disclosure which also happens to be the primary reference for the rejection.

Ganster et al. is of no assistance in providing motivation for combining with the elements of the applicants' admission as there is no direction or guidance for making such a combination even without the teaching away referred to by the applicants' last paragraph of page 1 of the specification and the direction or guidance for making the combination is even weaker still when the teaching away IS considered.

***Ganster et al. does not teach the polyurethane needed to be combined with applicants' "admission"***

Even if it were permitted to disregard the claimed invention and prior art as whole and simply combine the elements as needed without any recitation of motivation to do so, the combination of the applicants' admission and Ganster et al. still would not replicate the applicants' claimed invention because Ganster et al. does not describe the applicants' polyurethane adhesive. Even when giving Ganster et al. the best possible scope for their invention in order to support the examiner's rejection, Ganster et al. teaches a polyurethane adhesive which is far different than that claimed by the applicants (see chart below):

Applicants' polyurethane-based adhesive (claim 1)	Ganster et al. (U.S. Patent 6,191,216 - col. 2, lines 5-21)
60-80% by weight of an aliphatic isocyanate/polyol crosslinking system	hexamethylene diisocyanate or a modified hexamethylene diisocyanate polyetherpolyols with 2 to 6 hydroxyl groups and having OH values of 20 to 112 and an ethylene oxide (EO) content of $\geq 10$ wt. %
15-35% by weight of a filler	
0.05 - 0.20% by weight of an activator	
	anti-oxidants
	bismuth(III) carboxylates soluble in the above polyols and based on carboxylic acids having 2 to 18 C atoms as catalysts
	wherein the product of the functionalities of the polyurethane-forming components (hexamethylene diisocyanate and polyetherpolyols) is at least 5.2, the quantity of the catalyst amounts to 0.005 to 0.25 wt. %, relative to the polyols, the quantity of anti-oxidants is within the range of $\geq 0.1$ wt. %, relative to the polyols and a ratio of free NCO groups in the hexamethylene diisocyanate to the free OH of the polyols is from 0.30 to 0.70.

Not only must it be presumed that the additional elements of Ganster et al. are inherent parts of the applicants' invention (as there is no evidence that removal of any of their elements would still result in an a product with proper enablement), one of ordinary skill in the art must not only presume that the

missing elements are part of Ganster's invention and further still that the proper amounts are also taught by Ganster et al.

With regard to the inclusion of additional elements to Ganster's invention, even if Ganster et al. were to mention these elements in passing in the specification, this still would not render the resulting polyurethane adhesive to be obvious as one could not ignore the multitude of other potential ingredients taught by Ganster et al. As stated in *In re Rice*, 178 USPQ 478 (CCPA 1973) "...the board said, referring to the appellant's ingredients, 'It should be noted that an infinite number of combinations is possible.' Accepting that as an approximation to the truth, we fail to see the obviousness in devising appellant's.....[invention] as claimed." *Id.* at 480.

Even by climbing the hurdle presented by *Rice*, there still would be no motivation for the specific amounts of elements claimed by the applicants. MPEP 2144.05 section II (Optimization of Ranges) states that "A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)." Ganster et al. makes no such assertions with regard to the missing elements and the phalanx of limitations which intrinsically tie each of Ganster's elements together into an indivisible whole would appear to make it very difficult (if not impossible) to argue that one could optimize any variable in their invention.

***Evidence of secondary consideration was not considered***

The last of the *Graham* factors for determining obviousness is the at evidence of secondary considerations will be evaluated. The applicants hold that the evidence presented on pages 5 and 6 show evidence of "unexpected results".

The last paragraph on page 1 of the applicants' specification described the problems in the prior art with regard to the use of polyurethane adhesives with adhesive tape strips. DE 196 18 825 was provided as evidence that the use of some polyurethane adhesives was unsuitable for consumer applications. Disclosure of WO 97/43328 (Ganster et al.) was provided as further evidence as to its unsuitability. While the former represents a clear teaching away, perhaps the examiner could argue that Ganster et al. does not represent a clear teaching away but merely a non-preferred embodiment as the unsuitability of the product was made clear only after Solila irradiation.

However, the polyurethane adhesives used in the applicants claimed invention when subjected to the same Solila irradiation surprisingly did not exhibit the discoloration and exudation seen by the Ganster et al. adhesive (see page 6, lines 10-16). This would appear to be the objective evidence that the examiner had asked for in his office action.

### Closing

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Respectfully submitted,

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Attachments: Copy of pg. 515 (V. Activators) from *Handbook of Adhesive Technology*, edited by A. Pizzi and K.L. Mittal, Marcel Dekker Inc. (1994).

### CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment under 37 CFR § 1.116 (14 pages total) is being facsimile transmitted to the United States Patent and Trademark Office on the date indicated below:

Date: 26 March 2004

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# **HANDBOOK OF ADHESIVE TECHNOLOGY**

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**Cyanoacrylate Adhesives for Industrial Assembly****515****Table 4** Typical Fixture Time with Activator<sup>a</sup>

Gap (in.)	With activator	Without activator
0.000	1 s	10 s
0.005	50 s	600 s

<sup>a</sup>Steel/steel, 25°C, ethyl cyanoacrylate.**V. ACTIVATORS**

Since bases are catalysts for the curing reaction and acids are stabilizers for the cyanoacrylates, the pH value of the surface will control the cure speed. Surfaces that tend to be acidic will cure slowly compared to a neutral surface, which in turn will cure more slowly than an alkaline surface. In most applications the objective is to speed the cure; therefore, all the commercially available activators are weak bases dissolved in a volatile carrier. Applying an activator to a surface places a layer of the weak base in position to initiate the cure. Since they are stronger bases than moisture, they are able to neutralize the stabilizer systems in the adhesive more effectively, and thus they can tolerate larger gaps than would be possible with moisture alone. In general, the fixturing time is 10 times faster with activator than without it. Even with activator, the effect of the gap is clear (see Table 4).

Another advantage of the activator is the ability to cure a film or drop of the adhesive on a surface. The activator can be applied to either the surface being coated or to the top surface of the adhesive. The adhesive cures to a clear, hard, dry plastic that can be used to locate parts in position or to form a protective coating. Because the curing reaction is ionic, it is not sensitive to oxygen as are free-radical reactions, and it will cure through to the surface without the tackiness associated with free-radical curing systems.

**VI. IMPROVED COMMERCIAL CYANOACRYLATE COMPOUNDS****A. New Flexible Cyanoacrylates**

New cyanoacrylate compounds exhibit good adhesion to various plastics and elastomeric surfaces, such as Mylar, copper foil, and vinyl films. These products show better impact resistance and good flexibility compared to standard cyanoacrylates, good resistance to cracking under flexing or bending, and a longer open time than that of standard products.

**B. New Cure-Through-Gap Cyanoacrylates**

Through changes in the manufacturing process, cyanoacrylates can now be highly purified. This added purification step has led to the development of a group of materials that can cure through a gap without the typical reduction in shear strength and overall performance. More traditional formulations show a dramatic reduction in shear strength as the gap increases (see Fig. 6). Table 5 shows cure through a gap and the corresponding shear strength for these new, highly purified cyanoacrylates.

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